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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,777	01/23/2002	Mariko Matsumoto	040425-0153	4222
22428	7590	06/14/2005	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			LE, LANA N	
			ART UNIT	PAPER NUMBER
			2685	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/052,777

Applicant(s)

MATSUMOTO ET AL.

Examiner

Lana N Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-9 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 3-6,10 and 11 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>012302, 070804</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### **Election/Restriction**

1. The election made a mistake in including claims 13-14 where the original claims only have claims 1-12 and claim 12 is included in the chosen group since it depends on claim 7.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 7-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Kishigami et al (US 5,633,898) in view of Bezooijen et al (US 6,233,292).

Regarding claim 1, Kishigami et al disclose a portable radio terminal for realizing automatic frequency control (AFC) for automatically controlling an oscillation frequency of an oscillator, comprising:

means for intermittently (intermittent circuit 17 generate intermittent signal to frequency change signal generation circuit of AFC circuit 9) performing AFC operation (when FSK receiver is in intermittent operation mode; col 8, lines 43-67)

However, Kishigami et al do not disclose:

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means for shortening an AFC operation stop period when shift of the oscillation frequency is large.

Bezooijen et al disclose a terminal (digital communication device) comprising means for shortening an AFC operation stop period when a frequency shift of the oscillation frequency is large (the long term drift compensation signal needs to be updated for a longer interval and needs to work more when the oscillation frequency drift is large than if oscillation frequency shift is small the compensation interval is shorter; col 3, line 45 – col 4, line 12; abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to shorten the stop period in order to supply the needed power to fully compensate for the large amount of frequency offset.

Regarding claim 2, Kishigami et al and Van Bezooijen et al disclose the terminal according to claim 1, further comprising means for extending the stop period in intermittent operation of the AFC operation when the frequency shift of the oscillation frequency is small (if oscillation frequency shift is small the compensation interval is shorter due to less compensation amount needed and the power needed to be on to compensate in this short interval is shorter than the time it is off; col 3, line 45 – col 4, line 12; abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to extend the stop period in order to save power by only utilizing the sufficient power to compensate for the small amount of frequency offset needed.

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Regarding claim 7, Kishigami et al disclose an AFC control method of realizing automatic frequency control (AFC) for automatically controlling an oscillation frequency of an oscillator (col 7, lines 30-58). Kishigami et al do not disclose:

intermittently performing operation, and when a frequency shift the oscillation frequency is large, shortening an AFC operation stop period.

Van Bezooijen et al disclose an AFC control method for intermittently performing operation, and when a frequency shift the oscillation frequency is large, shortening an AFC operation stop period (the long term drift compensation signal needs to be updated for a longer interval and needs to be on more of the time when the oscillation frequency drift is large than if oscillation frequency shift is small the compensation interval is shorter; col 3, line 45 – col 4, line 12; abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to shorten the stop period in order to supply the needed power to fully compensate for the large amount of frequency offset.

Regarding claim 8, Kishigami et al and Van Bezooijen et al disclose the method according to claim 7, wherein Van Bezooijen when the frequency shift of the oscillation frequency is small, the stop period in intermittent operation of the AFC operation extended (if oscillation frequency shift is small the compensation interval is shorter due to less compensation amount needed and the power needed to be on to compensate in this short interval is shorter than the time it is off; col 3, line 45 – col 4, line 12; abstract). It would have been obvious to one of ordinary skill in the art at the time the invention

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was made to extend the stop period in order to save power by only utilizing the sufficient power to compensate for the small amount of frequency offset needed.

Regarding claim 9, Kishigami et al and Van Bezooijen et al disclose the method according to claim or 8, wherein Kishigami et al disclose the intermittent operation includes not only the AFC operation but also operation stop of a portable radio terminal (intermittent signal generating circuit stops supplying power until the next intermittent signal is received; col 8, lines 49-64).

Regarding claim 12, Kishigami et al and Van Bezooijen et al disclose the method according to claim 7, wherein Van Bezooijen et al disclose the AFC operation is performed at a predetermined short period when decoding fails, no pilot signal is detected, or a step-out state is detected (AFC operation is cut short when the compensation range limit is reached for the short term compensation and step out of the compensation on period; col 3, lines 54-59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to perform AFC in a short period when the compensation needed is done and an off period is detected to save power.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 1 is provisionally rejected under the judicially created doctrine of double patenting over claim 2 of copending Application No. 11/022,815. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

they both claim a portable radio terminal for realizing automatic frequency control (AFC) for automatically controlling an oscillation frequency of an oscillator, comprising:

means for intermittently performing AFC operation; and means for shortening an AFC operation stop period when a frequency shift of the oscillation frequency is large.

5. Claims 7 and 12 is provisionally rejected under the judicially created doctrine of double patenting over claim 4 of copending Application No. 11/022,815. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that

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copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

they both claim an AFC control method of realizing automatic frequency control (AFC) for automatically controlling an oscillation frequency of an oscillator, comprising:

intermittently performing AFC operation, and when a frequency shift of the oscillation frequency is large, shortening an AFC operation stop period;

where claim 4 further discloses the AFC operation is performed at a predetermined short period when decoding fails, no pilot signal is detected, or a step-out state is detected as in claim 12 of the present application.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lana N Le whose telephone number is (703) 308-5836. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F Urban can be reached on (703) 305-4385. The fax phone



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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Lana Le". The signature is fluid and cursive, with the first name "Lana" and the last name "Le" clearly distinguishable.

Lana Le

May 20, 2005